447,921

ors is passing between the strongest parts of the field, or the points where the two poles most nearly approach, the adjacent or intermediate conductors will pass through the weakest parts of the field, or the points where the two poles are most remote, as set forth.

2. The combination, with a connected series of radial conductors forming an annular coil, of a stationary two-part supporting-frame clamped to and insulated from the outer ends of said conductors, a ring formed in two parts clamped to the inner ends of the same, an energizing-coil contained in said ring, and a field-core made in two parts and inclosing said energizing-coil and presenting annular polar faces to the series of radial conductors, as described.

3. The combination, with the annular conducting-plate slotted to form a connected se20 ries of radial conductors, a sectional supporting-frame secured to and insulated from the outer edge of the slotted plate, a sectional ring secured to and insulated from the inner edge of said plate, a hollow energizing-coil
25 contained in said ring, and a field-core composed of two parts bolted together and recessed to inclose the energizing-coil, said cores being mounted in a rotating shaft, as set forth.

4. The combination, with two annular posolar faces of opposite magnetic polarity and formed with opposite points, projections, or serrations, of a conductor turned back upon itself in substantially radial convolutions and mounted in the annular field, whereby a rotation of the field or said conductor will develop therein an alternating current, as set forth.

5. The combination, with a polar face of given polarity formed with grooves or serrations, of a polar face of opposite polarity with 40 corresponding grooves or serrations, the two

polar faces being placed with their grooves opposite to each other, and a conductor or coil mounted between said faces with the capability of movement across the lines of force in a direction at right angles to that of the 45 grooves or serrations, as set forth.

6. In a magneto-electric machine, the combination of a sectional frame, a field-magnet core composed of two connected parts, a rotating shaft on which said core is mounted, a 50 conductor in which currents are to be induced, the convolutions of which are radially disposed between the polar faces of the field-core and secured to and supported by the frame, and an energizing-coil for the field-sore supported by the induced-current coil and contained in an annular recess formed by grooves in the faces of the two sections of the field-core.

7. The combination, with opposing field- 60 magnet poles formed with projections or serrations in their faces, the highest parts or prominences of one face being opposite to those of the other, of a conductor the convolutions of which are adapted to pass at right 65 angles through the magnetic lines between the opposing prominences, as set forth.

8. The combination, with a rotating field-magnet core having two opposing and annular polar faces with radial grooves or serrations therein systematically disposed, so that the highest parts or prominences of one face lie opposite to those of the other, of a stationary conductor with radial convolutions and mounted between the polar faces, as set forth. 75

NIKOLA TESLA.

Witnesses:

ROBT. F. GAYLORD,
PARKER N. PAGE.